Physics I.8

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I

By the end of chapter 7 Aristotle was in a position to conclude:

> From these considerations it is now evident what distinguishes the opposites, how the principles are related to each other, and what type of thing that which underlies is. Whether the form or that which underlies is substance is not yet clear. But it is clear that there are three principles, in what way there are three, and what kind of principle each is. (191a17–21)

Accordingly, this closing section of the chapter suggests that the investigation of the principles of change has successfully been finished. This is then only reinforced by the last sentence of the chapter:

> This completes our examination of how many the principles are and what they are. (191a21–2)

All in all, one could take away the impression that the principal discussion of the book is over, and what remains is a discussion of the claims to substantiality of the two crucial principles, matter and form. But (though one may indeed argue that something along these lines will *also* happen in the following two chapters, which close Aristotle's argumentation in book I, especially in chapter 9) the last sentence of chapter 7 does not lead over to an explicit discussion of these issues about the substantial status of matter and form. Instead, in a typical Aristotelian manner, we have an introductory sentence attached closely to the concluding clause of the previous chapter. The usual *men* ... *de* construction after claiming (in the first, *men* clause) that the direct discussion of the number of the principles, and what they are, has been concluded, leads over in a conjoint *de* clause to a further claim, that the solution canvassed in the previous

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chapters does also provide a resounding answer to the difficulty, or even puzzle, raised by some earlier philosophers.[1]

This puzzle has not been mentioned in the previous argumentation. At this point it is not pellucid why it is important to broach these issues at this place, and what is gained by showing that the Aristotelian account of the principles of change is a potent remedy – indeed, the only remedy – against this puzzle. One line of thought could be to suggest that chapter 8 gives further argumentative depth to the Eleatic position – a position that has been first discredited as not within the domain of physics, but then discussed nevertheless, because

> although <the Eleatics do> not <speak> about nature, they nonetheless happen to state physical difficulties. So it is presumably a good idea to have a little dialectical discussion about them. For the investigation does contain some philosophy. (185a17–20)

On this line of interpretation, even though the Eleatic puzzles have been laid to rest in chapters 2 and 3, chapter 8, by explaining how Eleatic monism is dependent on the Eleatic puzzles about generation from being or from not-being, from what is or from what is not, reaches two connected results. First, and perhaps most importantly, we are also provided with an account about why the Eleatics arrived at their monism: this happened when

> overplaying the immediate consequence [of the difficulty about coming to be] they say that the many things do not exist, but only what is itself exists. (191a31–3)

As a result of this, the original Eleatic puzzles of chapters 2 and 3 will be invested with additional relevance. Once the roots of the Eleatic error are here ferreted out by the Aristotelian account, it becomes clear how intimately these puzzles are, at their root, connected to an enquiry into natural philosophy.

However, we should note two further significant points here. One is that Aristotle claims that the resolution of these puzzles had to wait until his account of change has been thoroughly formulated. Although the Eleatic puzzle should have called for further inquiry, while later philosophers may have attempted to tackle some Eleatic problems, they could not deploy the Aristotelian explanatory framework developed in the

[1] Or to their perplexity. The word Aristotle uses is *aporia* – in the singular in the opening sentence of the chapter (191a23–4), in the plural in the closing lines of the chapter (191b30–4).

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intervening chapters; instead they came up with suggestions that did not identify the root of the problem.

The other significant detail is that rather surprisingly Aristotle calls the Eleatics here 'the first to inquire philosophically into truth and the nature of the things' (191a24–5). This confers on them some crucial chronological priority. This chronological priority, however, need not situate them before every one of the natural philosophers (*physikoi*), who serve as the point of departure in chapter 4 for Aristotle's discussion leading up to his account of change. Rather, it suggests that the kind of rigorous philosophical analysis first advocated by the Eleatics – with rather disastrous immediate consequences – was also a crucially important starting point for formulating and assessing a viable account of coming to be.

II

We should note that Aristotle – unlike our contemporary account – does not present this Eleatic challenge as a watershed when he elaborates on the theories of change of his predecessors in *Physics* I. Most specifically, when he says about Anaxagoras, in *Phys*. I.4.187a26–b7, that his introduction of an infinite number of homogeneous and opposite principles was motivated on the one hand by the conviction that nothing comes to be from what is not, and on the other by the claim that opposites come to be from opposites, he presents the first conviction as the general, consensual opinion of the *physikoi*,[2] and does not connect it to Eleatic strictures on coming to be. The next step in Aristotle's account of Anaxagoras' reasoning from these two considerations is that the opposites which come to be have to be present in the entity undergoing the change (187a32). It is only after this interim conclusion that he reformulates these considerations in a dilemmatic fashion, that everything that comes to be has to come to be either from things that are, or from things that are not (both in the plural). The option that coming to be from things that are not is ruled out by all the *physikoi*, consequently only the other option remains, that everything that comes to be has to come to be from beings, and hence these have to be already – latently – present at the beginning of the process of coming to be (187a32–b1). Accordingly, despite the striking similarities, Aristotle does

[2] Indeed, not every one of the *physikoi* had to assert this general opinion in so many words. Aristotle could establish that all his predecessors upheld this principle by observing that each of them formulated a proposal in which some entity, or some entities serve as the starting point of the coming to be of other entities.

not formulate Anaxagoras' argument as a response to the Eleatic challenge. Rather, it is presented as following up on a consensual insight of all the *physikoi* and on their commitment that coming to be is from opposites.[3]

In contrast to this generally held opinion, in chapter 8 Aristotle introduces the Eleatic stricture against coming to be from what is not as formulated in an explicit manner, from appropriately general considerations – in particular, as one horn of a dilemma which is intended to block both possible avenues of coming to be. As I have indicated, Aristotle does not present the various accounts of his predecessors as a response to this challenge. His claim is that it remained to him to fully defuse this challenge. Earlier attempts, even if some may be registered, are found lacking, as only the fully developed Aristotelian account of change is adequate to this task. Plato, with his inadequate grasp of the material principle, is the only possible exception, because – unlike other earlier thinkers – he at least appreciated the inherent complexity of the underlier.

What this suggests is that Aristotle, instead of presenting the Eleatic challenge as a point of departure for later accounts, treats it here as a test case. If his account can meet this challenge, it is markedly superior to the other ones that cannot. In addition, Aristotle makes an even larger claim. In the opening sentence of the chapter he claims that the Eleatic puzzle can *only* be solved by relying on his account of coming to be and change. This is indeed a very large claim, and the ensuing discussion at first sight does not do justice to it. It is beyond doubt that Aristotle's argumentation intends to show that his theory of principles *can* provide a solution to these puzzles. But it is much more momentous to assert that any solution to

[3] It is also instructive to see what kind of responses to Eleatic challenges Aristotle mentions in the course of *Phys*. I. First there is mention of the 'more recent of the earliest thinkers' at the end of ch. 2, who went along with Eleatic worries so much that they initiated wholesale revisions of admissible philosophical language, because they were 'also troubled lest the same thing should turn out for them to be at the same time both one and many' (185b25–7). Apparently those like Empedocles and Anaxagoras, who 'say that the things that are are both one and many' (*Phys*. I.4.187a21–2), did not take the Eleatic menace to heart to the extent these 'more recent of the earliest thinkers' did. Chapter 3 mentions some other philosophers, who 'gave in to both [Eleatic] arguments, namely to the argument according to which all things are one, if being signifies one thing, by conceding that what is not is, and to the argument from dichotomy, by introducing atomic magnitudes' (187a1–3). Although ancient commentators take this to refer to Plato and Xenocrates, the Atomists may also be included, or may even have a better title for blocking *both* Eleatic arguments (for a discussion see Laura Castelli's balanced evaluation in section VI of her contribution in this volume). After this, when Aristotle claims at the beginning of chapter 5 (188a19–26) that every one of his predecessors posited opposites as principles he also includes Democritus, because he introduced the full as what is and the empty as what is not (with the superaddition of further oppositions within the genera of position, shape and order). So even if – or even though – Aristotle in ch. 3 took the Atomists to respond to Eleatic arguments, here he emphasises that consideration which links them to all the earliest philosophers (with Parmenides himself also included: see 188a19–22).

these puzzles *will have to* deploy the Aristotelian account. At this point I only intend to register this caveat. I do think there is a case to be made in defence of Aristotle's claim, and I will be able to make some brief suggestions in that regard in the closing section of my discussion.

In order to show that his account can address the Eleatic puzzle about coming to be, Aristotle first proceeds to set out this difficulty more or less on the Eleatics' terms:

> So they say that none of the things that are either comes to be or ceases to be, because it is necessary that what comes to be does so either from what is or from what is not; but from both of these it is impossible. For what is cannot come to be (because it already is), and from what is not nothing could come to be (because something has to underlie). (191a27–31)

The result of a putative coming to be in the first sentence is designated in two different ways. On the second occasion this is effected in a direct fashion, as 'what comes to be', the *gignomenon*, whereas in the initial formulation of the Eleatic thesis Aristotle speaks in the plural about the 'things that are', the *onta*: none of these beings comes to be or ceases to be. Nevertheless, neither Aristotle nor his Eleatic forebears should be worried about this terminological variation. Neither formulation carries any particular commitment; instead, in both formulations what we get amounts to setting out the requirements of a putative coming to be. Such a result of some coming to be should be a *gignomenon*,[4] because it is the result of the very process of this coming to be; moreover, if there are such comings to be, unless there is some fundamental ontological divide involved, the results of these should be full-fledged denizens of the world, they should also qualify as things that are, as *onta*. This introduction of the position in these terms is followed in the next sentence by a very succinct formulation, this time with the subject phrase 'what is' in the singular.[5]

More important than these considerations about the formulations on the subject term side are the actual reasons Aristotle sets out as deployed by the Eleatics. The considerations are formulated only for the impossibility of coming to be: the impossibility of ceasing to be is not argued for.[6] The rejection of the coming to be of what is happens in a dilemmatic fashion.

[4] Cf. Aristotle's meticulous distinction at the beginning of ch. 7 between the *gignomenon*, the item that undergoes change, and *ho gignetai*, the result of the change. This sharp terminological distinction, however, is given up at 190b3ff., where *to gignomenon* already refers to what comes into being from the seed or the semen.

[5] This formulation in the singular is also a vehicle of expressing generality. Moreover, switching to the singular fits better the monistic convictions the argument will give rise to.

[6] Cf. Parmenides B8, where also only the case for the rejection of generation is set out.

Either it should come to be from what is – but then we do not have a coming to be of what is, only its preservation – or it should come to be from what is not. This latter option, however, is impossible, because, as Aristotle says, 'something has to underlie'.[7]

III

It should come as no surprise that Aristotle's strategy with this difficulty will be one of introducing a distinction which will allow him to defend the coming to be of what is. Nevertheless, we should keep in mind at least two issues while we are pursuing Aristotle's solution to this Eleatic puzzle. One should be to elaborate on Aristotle's admissions: what are those cases in which he thinks that the application of his distinction makes the Eleatic claims come out true, and what reasons does he provide for evaluating these cases this way. The other one is how exactly the distinction is related to the account of principles Aristotle introduced in the previous chapters.

The distinction Aristotle introduces is one of something's being the case about a subject either in its own right, or something's being the case about the subject not in its own right.[8] The first of these is that in which we can make the assertion about the subject in the most proper way; the second of these – that in which something is the case about a subject not in its own right – also gives rise to perfectly legitimate and true sentences. Indeed, in most cases of the latter sort there must be some other way of specifying the subject. This in turn is made possible by the ontological complexity of the item picked out by the subject term of the assertion. In this case the entity corresponding to this further specification is

[7] Note that this paraphrase is meant to capture the ambiguity between the text in Simplicius' quotes in his criticism of Philoponus at the beginning of the commentary on book VIII, at *In Phys.* 1140.24 and 1144.7 – that it is the conviction of these thinkers, as recapitulated by Aristotle, that something has to underlie – and that of the codices of the *Physics* and of the commentators, including Simplicius' lemma at *In Phys.* 235.10 – that this is Aristotle's consideration, which somehow nevertheless can be used as an explanation of the stance of these thinkers. Either way, Aristotle's tinkering with the Eleatic position is unmistakable, and amounts to roughly the same: the Eleatic rejection of what is not, which guarantees that it cannot be the starting point for a putative process, is reformulated by Aristotle as an implicit admission that an underlier is necessary in such a putative process of generation, and what is not cannot fill this bill.

[8] In my paraphrase 'in its own right' stands for Aristotle's formulations with *hei* in the chapter, that something is true of an item in so far as it is what it is, and also in claims where something is true of an item in a non-coincidental manner (*me kata symbebekos*, or *ou kata symbebekos* if the negation is on the sentence level). 'According to itself' is reserved for those cases where Aristotle uses the expression *kath' hauto* in the chapter, or when I want to indicate that the restriction needs to be construed with narrow scope.

responsible for what was asserted in our original statement about the original subject truly, but not in its own right.

All this is achieved in three consecutive steps. First Aristotle insists that a distinction is to be made about the sentences formulating the Eleatic claims. As a next step he suggests how that distinction can be applied in a general fashion to any sentence, be it about any particular subject – about a physician, or about being. Then, returning to the claims about what is and what is not, he stresses that these claims will need to be assessed in the same way as the similar propositions about any other subject term.

> We, however, say that, in one way, to come to be from what is, or from what is not, or for what is not or what is to do something, or to be acted upon, or come to be a this, of any sort, is no different from the physician's doing something, or being acted upon, or something's being from the physician, or <something's> coming to be <from the physician>, and so as this <latter> is said in two ways, it is clear that also <being or coming to be> from what is, and what is doing something, or being acted upon, too <are said in two ways>. (191a33–b4)

These claims then are followed by the introduction of the crucial distinction:

> A physician builds a house, not in so far as he is a physician, but in so far as he is a housebuilder, and he comes to be pale, not in so far as he is a physician, but in so far as he is dark. On the other hand, he heals or fails to be a physician in so far as he is a physician. Since we say most properly that the physician does something, or is acted upon, or <something> comes to be from a physician, when these are acted upon him, or he does <these>, or comes to be <these> in so far as he is a physician, it is clear that also 'to come to be from what is not' signifies[9] '<to come to be from what is not> in so far as it is what is not'. (191b4–10)

After the introduction of the distinction Aristotle turns back to the Eleatics, and claims that they were unable to extricate themselves from their puzzle because they failed to make this distinction.

We should note that what Aristotle relies on at this point is not exactly the initial claim he made at the beginning of the chapter that the Eleatic error can be rooted out only through the results of the previous chapters. These are not even called in yet, at least not in an overt fashion.[10] Instead,

[9] Note that 'signify' here and at 191b26 is coordinate with what we say most properly, unlike e.g. on its occurrence in chapter 1, at 184b11. (Cf. further Laura Castelli's section on 'Signifying' (*semainein*) on pp. 87–91 above.)

[10] The contrast between something being that from which there is coming to be in its own right, or only coincidentally, was present in *Phys*. I.7.190b17–20, where coming to be is said to be from the

what he says that the Eleatics missed out on was a much more general distinction they should have made about what something is in its own right, and what it is coincidentally, not in its own right. Indeed, one could just retort that this should not be a workable distinction for an Eleatic, and what Aristotle is doing here is rerunning his previous strategy of arguing against Eleaticism by introducing some internal complexity into the unitary and uniform Eleatic being, and then using that internal complexity in order to argue for differentiation, and eventually for multiplicity.

But the Aristotelian charge here has some more depth to it. It is a two-stage argument. First the internal complexity is applied to the subject of coming to be and of perishing. The Eleatic may object that what could be the putative starting point of such processes does not allow for this internal differentiation, but then he fails to adhere to the structure of his own argument – as presented by Aristotle – where the unicity of being is derived as a second step, after the rejection of coming to be and ceasing to be.

Even though the distinction Aristotle uses here is apparently not introduced in terms of the results of the previous considerations, about underlier, privation and form, the way Aristotle opened this chapter suggested that there should be such a connection. This connection, or mapping, is effected in the next passage, in a context where Aristotle is not concerned directly with the Eleatics. Here, instead, he will draw the consequences of an Eleatic-style argument, if run in a legitimate fashion, taking into account those crucial results about change.

First, after the general framework is set out in terms of the distinction of what holds good of something in its own right, and what holds not in its own right, Aristotle indicates how this distinction can make room for coming to be from what is not.

> We too, on our part, say that nothing comes to be without qualification from what is not. But nevertheless <something> comes to be in some way from what is not – that is, incidentally. (191b13–15)

It is only after this general remark that in the next sentence the slots indicated through this distinction are filled out in terms of the physical principles of the previous chapters. As it turns out, what is not according to itself will be identical to what was earlier introduced as privation:

underlier and shape non-coincidentally, and then again at b25–7, where this claim is repeated about the underlier. (Cf. also the distinction of *Phys*. I.9.192a25–9, where on the first alternative matter is claimed to pass away (and presumably also to come to be) in its own right.)

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> (For from the privation, which is in itself what is not – an item that is not present as a constituent in <what comes to be>, something comes to be. Yet this is a cause of surprise, and it seems impossible that something should come to be this way, from what is not.) (191b15–17)

Apart from identifying what is not in itself, or what is not according to itself, with privation, these claims also make clear that in some sense there is coming to be from this item. But, as the previous passage insisted, this coming to be cannot be a coming to be without qualification. Or, in the terms in which the distinction was originally introduced above, it cannot be a coming to be from privation in its own right. It can only be a coming to be in a coincidental way from this entity.

This claim then puts the distinction introduced in this chapter squarely in the context of chapter 7. We should recall that there, in the passage stretching from 190b17 to 191a3, the coincidental status of privation was stressed, and contrasted to the status of the underlier, which turned out to be one in number, but dual in form or in kind. This should also mean that there is more to the coincidental status of the role of privation than the fact that privation always resides in an underlier. If the consideration was nothing more than this ontological incompleteness, or non-saturatedness on the part of privation, then the very same consideration would arguably cut both ways. Accordingly, by the lights of the argumentation of chapter 8 we would also be forced to admit that whatever coming to be there is from the underlier, through the unsaturated status of the underlier – from the fact that the underlier always has either privation or form – coming to be from the underlier should also happen in a coincidental manner. Effectively, this would require that the contrast drawn in chapter 7, that coming to be is from the underlier in a non-coincidental way, should be revoked.[11]

One way out of this difficulty would be precisely to return to the considerations of chapter 7 I have just referred to. Those considerations introduced a fundamental asymmetry between the underlier and privation. First, the underlier, as both chapter 7, and now chapter 8, stress, will be present in the result of coming to be, whereas privation has the paradoxical status that it takes part in the process of change only by not being present any longer.[12] Moreover, the underlier, as chapter 7

[11] Moreover, such a consideration in itself would not allow for a difference between the status of privation and form; both of them would come out as incomplete, unsaturated entities.

[12] Ancient commentators, at least from Alexander on, relied heavily on this contrast to block the parallelisms between the status of privation, on the one hand, and of matter and form, on the other.

asserted, is a single entity, with dual characteristics. This is not true of privation. Hence the underlier has more claim on being something from which coming to be proceeds in its own right, even though that entity can also be characterised as in itself an unsaturated one.[13]

IV

Before we can assess these issues in more detail, we need to turn to Aristotle's discussion of the second horn of the Eleatic dilemma, the impossibility of coming to be from what is. In this second part Aristotle suggests that the same distinction, between coming to be from something in its own right and coming to be from something in a coincidental manner, will defuse the Eleatics' argument against coming to be from what is in exactly the same way as he argued for the admissibility of coming to be from what is not in a coincidental manner.

> In the same way <we maintain> that <something> does not come to be from what is, and what is does not come to be <something>, except incidentally. This, too, comes to be this way – the same way as if, e.g., from animal animal might come to be, and from some animal some animal <might come to be>. (191b18–20)

After this the example of such a coincidental coming to be mentioned in the last clause is set out in some detail and some further clarification is added:

> Thus, suppose a dog to come to be from a horse. The dog would not only come to be from some animal, but also from animal, but not in so far as it is an animal, for that is already present. But if something is going to come to be an animal, not incidentally, it will not be from animal: and if <something is going to come to be> what is, <not incidentally, it will> not <be> from what is. Not from what is not either, for we have said what 'from what is not' signifies, namely that <from what is not> in so far as it is what is not. (191b20–6)

We should note three things about Aristotle's argumentative strategy here, all of them distinguishing it from his considerations about the first

See Alexander as quoted by Simplicius, *In Phys.* 238.10–14, and also Alexander, *Quaestio* I.24, p. 38.32–39.1, quoted in n. 15 below.

[13] As I shall argue at the end of this chapter, it is not just that matter is non-saturated. In conformity with the claims about matter, that it can be grasped only through analogy (*Phys.* I.7.191a7–12), it also lacks the distinctness either privation or form confer on it. In other words, it is neither what is according to itself nor what is not according to itself. We should also note that the incomplete and indefinite nature of matter that I am arguing for will loom large in the discussions of ch. 9.

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leg of the argument. First of all, this time we get no identification of what is from which coming to be occurs in a coincidental way with an item on the Aristotelian list of principles. Furthermore – unlike on the first leg of the argument – it is not specified whether the being in question from which there is coming to be in a coincidental manner is being according to itself, or not. And finally, the example Aristotle provided arguing for the case of what is coming to be from what is in a coincidental manner, is downright fantastic.

The first two issues are connected. After the first leg of the argument, where Aristotle claimed that from privation, which is what is not according to itself, there is coming to be in a coincidental way, the second leg of the argument could mobilise considerations about the underlier or form, if Aristotle were to identify the being that he speaks about here with one of the principles of his account of change. Both of them, however, have already been designated in *Phys*. I.7.190b17–20 as principles from which the product of coming to be is constituted and comes to be in a non-coincidental manner.[14] Hence, if Aristotle's example provides illumination about cases where some being is the starting point of a coming to be of another being in a coincidental way, this entity cannot possibly be the underlier or the form of the product.[15]

[14] One may try to introduce a distinction here, and claim that the statements of ch. 7 were about the product of coming to be, that that product is constituted and comes to be from the underlier and form in a non-coincidental manner – i.e. in so far as it, the product of generation, is said to be according to what it is (or according to its nature: Aristotle uses *ousia* here at 190b23), whereas the claims of ch. 8 are formulated in different terms, about the metaphysical constituents of the product, that coming to be is from this entity in its own right. This kind of distinction, however, will not work: there is no way to dissociate the product of coming to be and its form, and to claim that the coming to be of the product is non-coincidental according to what the product of the coming to be, having this kind of form, is, but coincidental according to the form conferred on the product.

[15] Note that my argumentation in this paragraph and the following ones runs counter to the exegesis of the majority of the ancient commentators, who try to find a foothold for the second leg of the argument in Aristotle's account of the principles of change. For instance, Alexander in *Quaestio* I.24 at p. 38.14–16 asserts that 'one can divide what is said in the first solution [the one running from 191a34 to b27] so that to say that one part of it is said about privation and the other about matter'. Alexander is able to effect this division by using different criteria for asserting that a coming to be is from an item in its own right (*kath' hauto*) on the one hand, and that it is from an item coincidentally (*kata symbebekos*) on the other. Accordingly, 'the things that come to be come to be from matter in its own right, for it remains the being that it is according to its account and retaining its nature receives the form of what comes into being' (p. 38.32–39.1), but 'generation . . . is not from matter and what is in its own right, if its change to the form is in so far as there is privation' (p. 39.4–7, translations Sharples 1992: 80–2, somewhat adapted). See also Philop. *In Phys*. 171.15–17 and 25–7, and Simpl. *In Phys*. 236.28–32, where Simplicius grafts 'matter in so far as it is being' on the second leg of Aristotle's solution and writes 'what is does not come to be from matter in so far as it is being, but [only] coincidentally, because it is a coincident (*symbebeke*) of

As to the other issue, that these lines do not specify whether the being in question is, or is not what is according to itself, one can venture the following considerations. Form – being the opposite of privation, which is what is not according to itself – would have every reason to be called a being according to itself, or the item that can be designated what is according to itself. But as we have seen, Aristotle's arguments in chapter 7 already ruled out form as a principle of coming to be in a coincidental manner, unless we were to speak about coming to be that is non-coincidental according to a different form – such as a case when a physician turns pale. This is coming to be for the form of physician in a coincidental fashion. In that case, however, not only would the form not be linked to the process in its own right, it could not be characterised as being according to itself in terms of the coming to be we are talking about. In the case of the physician turning pale, the privation from which the coming to be started out was dark. In this case that qualified as what is not according to itself, or the not-being according to itself. Accordingly, in this case the form pale is achieved, hence that form qualifies as what is according to itself, or being according to itself, as far as this coming to be is concerned, not medical art, the form of the physician.

From these considerations we can infer that the being from which Aristotle argues there is coming to be in a coincidental fashion cannot be identical to any of the metaphysical constituents of change, and it cannot be a being according to itself either. This is also borne out by the example with which Aristotle sets out to illuminate his claim. In a case when dog comes from horse, and both of them being animals this item remains, animal is neither underlier, nor privation, nor form, and it definitely does not qualify as that item according to which this coming to be occurs. At the very most it could be identified as the common genus of the two forms – the genus belonging to dog and to horse.[16] But there is no need to go down this road of metaphysical analysis. Instead, it is sufficient to take the Aristotelian example at face value, claiming as it does that when dog

matter that it is not the being that comes to be, as the privation of that being that comes to be is present in it'.

[16] This would situate this item in the Aristotelian metaphysical framework as a common constitutive part of the privation and of the form. The serious drawback of this line of interpretation is that in the parallel case of being coming to be from being in a coincidental manner it would require us to make the highly dubious claim that being too is, if not as a common genus, at least as some common formal component, some constitutive part of the form and the privation.

comes to be from some animal, say horse, it also comes to be from animal – the animal that is this horse.[17]

The advantage of this deflationary reading will be apparent when we turn to the cases of coming to be from being in a coincidental manner, for which Aristotle introduced this example. In every case of coming to be the starting point of this coming to be is being – and the result will also be being. And indeed, just as Aristotle claims about the case in which dog comes to be from horse, the coming to be from what is will not be in its own right as what is.[18] For both of them a starting point would be required that is not the same as the outcome – not-animal for cases of animal generation, like the sperm mentioned earlier in *Phys*. I.7.190b1–5, and what is not instead of those, impossible cases where what is would be generated in a non-coincidental way from something that is. This also accounts for Aristotle's closing remark. After setting out why being cannot be the starting point of a coming to be in its own right, there is reason to return to the other option: if coming to be does not happen from being in its own right, if it happens from something in its own right– as it does from the underlier – we may expect by exclusion that that is not-being. But that conclusion would be unwarranted: coming to be from what is not has already been shown to happen in a coincidental fashion, and the not-being in question is nothing but privation.

Although Aristotle closes this argument here without returning to the status of the underlier, this consideration further reinforces the crucial double-faced characteristic of the underlier, that coming to be happens from it in its own right because it is neither what is not according to itself nor just what is. Accordingly, Aristotle's solution to the Eleatic conundrum about the impossibility of coming to be provides illumination about the status of the underlier, setting his account in very stark contrast to the earlier theories he has been discussing from chapter 4 on. Those earlier accounts took the opposites, and what the opposites qualified, all as beings.

[17] Ross 1936: 496, too, construes the argument in this deflationary way ('"animal" is simply a common predicate of two things with individual differences. And so too with ὄν'), although – as I shall argue presently – this claim about the status of 'animal' is problematic on the emendation he introduces into the text.

[18] This deflationary understanding of the Aristotelian passage may also lie behind Themistius' paraphrase where he writes: 'So too, if water came to be from air, something that is is said to come to be from something that is, not because what already is comes to be, neither because what comes to be already is. Instead from something of which being is predicated something else comes to be to which the self-same being also belongs' (31.4–7, translation from Todd 2012: 48 substantially modified, the most substantial divergence being that I take *auto to on* on line 7 not as 'being itself', but as 'the self-same being', i.e. being of the same type as was present at the start of the coming to be).

Aristotle's discussion of the Eleatic puzzle then makes the crucial contribution that it distances the Aristotelian account from those of these predecessors. It is not only that the opposites they introduce may not qualify for the full status of form, but also that their single underlying substance – like principles of the monists, discussed in *Phys*. I.4.189a33–b3 – does not satisfy the requirements on what it is to be an underlier as implied by Aristotle's refutation of the Eleatics.[19]

At this point I should return to the third issue I have mentioned above, the downright fantastic example Aristotle uses in elucidation of his claim about the coincidental status of coming to be from being. Although the example of dog, an animal, coming to be from horse, another animal, fitted in seamlessly with the argumentative structure I charted above, one nevertheless owes an explanation why a less extraordinary coming to be could not have served as an example. After all, my claim was that practically every instance of coming to be can be described as coming to be from being in a coincidental way. One might have expected that, in that case, Aristotle definitely should not have resorted to the fantastic example he sets out here. Note, however, that although every instance of coming to be can be also described as a coming to be from being in a coincidental fashion, this does not yet provide an example about an item on the analogy of which the claim about coming to be from being in a coincidental fashion could be introduced in an illuminative manner. Most importantly, we need a case where the common element is not the underlier: as I have argued above, the identical factor of the starting point and of the outcome should not bear any metaphysical role in the process of coming to be. Hence the example I mentioned, the physician coming to be pale in a coincidental fashion, may also be misleading, because even though the relevant specification of the underlier for this coming to be is the physician – or the person of whatever expertise – who is dark, the subject term of the sentence picks out the underlier of this case nevertheless. Aristotle's fantastic example is markedly superior, because the starting point and the result are both of them animals, but each of them in its own right, and animal need not refer to anything permanent through the change.[20]

[19] In this regard see Jim Lennox's acute observation in his chapter in this volume (p. 227, with n. 3 there) that Aristotle refers to the principles of his predecessors as matter (*hyle*) and form only in 187a12–23, a context where they are mentioned together with, and contrasted to, Plato.

[20] Note that the claim is not that there need not be anything permanent in the process of coming to be. Rather that Aristotle's example, fantastic though it is, manages to introduce a coming to be where a commonality can be specified without any tacit reference to the underlier.

Nevertheless, dissatisfaction with the example goes back a long way. Simplicius already discusses at *In Phys*. 239.28–240.5 an alternative reading – 'suppose a dog or a horse to come to be' – and he takes it to involve that the dog, or the horse, in question comes to be in the usual way, from dog or from horse. This reading is equivalent to the conjecture introduced by Laas and accepted by Ross in his editions, and by Charlton in the Clarendon Aristotle Series:

> Thus, suppose a dog to come to be <from a dog, or a horse> from a horse. The dog would not only come to be from some animal, but also from animal, but not in so far as it is an animal, for that is already present. (191b20–3)

But resorting to such an emendation and replacing the fantastic example with a regular case of animal reproduction would not meet Aristotle's requirements, as the very claim that animal would be a starting point of the coming to be of the resulting animal in a coincidental fashion would be dubious. This is so, because in the case of dog coming to be from dog and horse coming to be from horse, the generations starting out from the male (and perhaps also from the female) parent of the offspring would certainly qualify as generations in a non-coincidental manner on the species level. These generations occur exactly in so far as these parents are what they are. Consequently, there would be no reason to take these generations to be comings to be in a coincidental fashion even when we refer to these dogs or horses by their genus, that they are animals.[21]

Now that we have set out Aristotle's arguments for the possibility of coming to be from what is and from what is not in a coincidental fashion, we can address the issue, much discussed in recent literature, whether being and not-being here are to be understood in an existential or in a copulative sense, and what difference such a decision might imply.[22]

Although one might be reluctant to make this distinction, as it is admittedly not straightforwardly present in Aristotle's discussion of being, one can definitely make two remarks. One is that in chapters 7 and 8 Aristotle clearly makes a distinction between something being present or absent (*parousia* and *apousia* at 191a7, *enyparchein* at 191b16), irrespective of what claim the item that is present or absent has on being. This is exactly why the role of privation is so paradoxical in coming to be: it is what is not according to itself, even when it is present. The absence of this

[21] See further Waterlow 1982: 17f. with n. 13 there, and Kelsey 2006.
[22] See Code 1976b; Loux 1992; Anagnostopoulos 2013; Clarke 2015.

privation, that is, of what is not according to itself, is 'a cause of surprise, and it seems impossible that something should come to be this way, from what is not' (191b16–17).[23] The same should also trivially apply to form: as the opposite of privation – which is what is not according to itself – it should qualify as what is according to itself, and coming to be can be accounted for by its initial absence, followed by its presence (as Aristotle claims in *Phys*. I.7.191a5–7).

The distinction should apply along exactly the same lines to matter: that constituent is present all through the process of coming to be, but it is a double-faced item, also in the sense that it is neither what is not nor what is according to itself. With all three parallel distinctions in hand one may assert that the being in these characterisations of privation, form and matter, respectively, is not on a par with their presence. In view of this one may venture to claim that presence and absence are very much like our notions of existence and lack thereof, whereas the being involved in the characterisation of privation, form and underlier are nearer to our understanding of copulative being. Before going down this road, however, one must also add that not everything that would qualify as copulative being is admissible in this latter case. Only the privileged type, form, will be admitted as being according to itself. Even though the double-faced nature of the underlier can be truly and explicitly characterised in the copulative sentences that it is 'one in number but not one in form' (190a15–16), or 'one in number but two in form' (190b24), this does not invest it with being according to itself. It remains true that it is neither what is not nor what is according to itself. Moreover, once we take into account that talk about the being of form, as a default, also involves claims about the *presence* of form, we shall see that talk about the being according to itself, as a default, also involves an existential claim.

V

After this we should return to the closing remark about the solution Aristotle supplies in the following lines:

> Furthermore we do not do away with the principle that everything either is or is not. (191b26–7)

[23] Note that the distinction between absence and privation is upheld to the extent that the absence of privation is definitely not the privation of privation.

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This is clearly a well-placed jab at those like Plato, who might intend to relegate the domain of coming to be and perishing to a limbo between being and not-being. Such a move would be principally suspect, because then this domain might be characterised in contradictory terms, or in terms which suggest that it is some *sui generis* middle ground between being and not-being.

But we should not only take this assertion as a rallying cry against some Platonists. It should also be checked what its consequences are for the underlier, the true bearer of coming to be in its own right, which is nevertheless neither what is nor what is not according to itself. That would suggest – after acknowledging that the underlier as such has some intrinsic complexity to it – that even though this nature can be grasped only through analogy, it nevertheless is such that any talk about it fully and strictly satisfies the law of excluded middle.[24]

With this Aristotle has completed his discussion of what he put down as 'one way' (191a36) of unpacking the 'only solution' (191a13) to the Eleatic conundrum about coming to be and perishing. This is now immediately followed by 'another way':

> This then is one way [of solving the difficulty]. Another is that the same things can be said according to the potentiality and according to the actuality. This has been explained with greater precision elsewhere. So, just as we said, the difficulties which forced people to do away with some of the things we mentioned are now solved. (191b27–31)

It is not difficult to come up with suggestions how potentiality and actuality could be mobilised against the Eleatic considerations. All it takes is to claim, for the first horn of the dilemma, that an everyday object that is actually not-*F* can also be potentially *F*, and then the Eleatic worry can be stopped: it will be in so far as it is potentially *F* that it can be the starting point of a coming to be *F*. And then the very same case can be mustered against the other horn of the Eleatic dilemma: what is *F* can serve as the starting point for coming to be *F*, provided that the status of the two terminal points of the coming to be are different: the item that is potentially *F* will be suitable as a starting point for a coming to be actually *F*.

This, however, would not do justice to Aristotle's claim that this 'other way' is not a separate answer to the Eleatic conundrum on its own, but rather the 'other way' of unpacking 'the only solution', which uses the

[24] Cf. also Aristotle's charge against the Eleatics in *Phys*. I.2.185b19–25 that their presuppositions will lead to the rejection of the principle of non-contradiction.

results of the preceding discussion of the principles of change. In other words: the deployment of potentiality and actuality is not sufficient in itself for the purpose of defusing the Eleatic puzzle against coming to be. The proper response has to be illuminating about the status of the entities involved in coming to be, and has to give an account of coming to be through an adequate characterisation of these entities.

Therefore one needs to take a further step. If 'the same things can be said according to the potentiality and according to the actuality', one may try to combine the analytic tools of the first half of the chapter, and the tools introduced here, potentiality and actuality. Then the claim would, for example, be that coming to be actually *F* from some actually not-*F* item happens only in a coincidental fashion: this actuality, performing the role of privation, has to reside in some underlier, to the extent that without that it cannot fulfil this function in its own right. Similarly, what is nothing but potentially *F* will not be able to serve, in so far as it is what it is, as the starting point of a coming to be actually *F*. This case, too, is one where the coming to be is in need of another entity: that of the actually not-*F*. It is only the entity that is in some way both of these – very much along the lines of what Aristotle indicated in chapter 7 about the underlier – that can be a starting point of coming to be in so far as it is what it is.[25]

Even with this grafting of considerations about potentiality and actuality on the argumentation of the first part of the chapter all we could achieve was to set out a case where Aristotle in fact *does* use a set of the same fundamental insights in laying the Eleatic challenge to rest. This amounts to less, however, than the claim with which he introduced the arguments of the chapter, that *only* by deploying the results of the analysis of the foregoing chapters *can* the Eleatic challenge be met.

One response to this worry could be to take the claim in a very restricted sense: the way Aristotle addresses Eleatic arguments is the only one to overthrow the Eleatic challenge as contrasted to the ones he mentioned at the end of chapters 2 and 3.[26]

If, on the other hand, one takes the claim in its full, general force, one line of consideration may be the following. In order that there is coming to be and change the entities that serve as the starting points of these changes

[25] See Clarke 2015: 146f.

[26] Plato's response to Eleaticism may have been included among them: see n. 3 above. But even if that is so, ch. 9 will present Plato's account of change on a separate footing, as an attempt – albeit an unsatisfactory one – at grasping the crucially important entity, matter, that is at the heart of the Aristotelian solution. For an assessment of this claim along such considerations see Jim Lennox's contribution to this volume.

upon examination need to turn out to house some complexity. Without that – in a setup in which every entity would have just those features that belong to it in its own right – these entities would invariably manifest themselves, and nothing else. Hence there has to be room for some internal articulation in these entities, so that one can distinguish between the features that are the manifestations of what they are and those other ones that are not the manifestations of the entities themselves.[27]

Granted, this need for some complexity is still not identical to the further, more specific, claim that only the Aristotelian account of principles is able to account for coming to be and change, and hence to give an adequate response to the Eleatic conundrum. But after the piecemeal argumentation of chapters 4–7 Aristotle may have every reason to suppose that his account is the only one that can describe the internal complexity necessary for coming to be and change. Whether he is right in supposing this would require a very thorough examination, which would lead very far afield – perhaps even into a discussion of possible alternatives to the Aristotelian principles themselves.

VI

In closing it makes sense to take stock of what Aristotle seems to have accomplished here. This discussion of Eleaticism provided an opportunity to elaborate further on the status of privation and the underlier. The most important upshot of the chapter in this regard was that although it is the underlier that is the starting point of coming to be in its own right, this status of the underlier is paralleled by the role of privation in coming to be, as a starting point of these same comings to be in a coincidental fashion. Moreover, the characterisation of the roles of these two entities in terms of one of them being a starting point of coming to be in its own right, and the other a starting point of coming to be in a coincidental fashion, was paralleled, as I argued, by the characterisation of their status as what is not: privation was explicitly assigned the status of what is not according to itself, whereas the underlier, consequently, could only qualify as what is not in a coincidental fashion.

This is an important point for appreciating how underlier and privation work in tandem, and how they are related to each other. Furthermore, I have argued that by this characterisation of privation and the underlier Aristotle effectively drives a wedge between his triplet of principles and that

[27] These considerations are analogous to the ones Sarah Broadie discusses in Waterlow 1982: 21–6.

of his predecessors who attributed coming to be to the operation of opposites on a single principle.[28] The Eleatic challenge then turns out to be a crucial test case for assessing the internal complexity of the Aristotelian account, and for showing that in some important sense almost every one of Aristotle's predecessors remained pre-Parmenidean, or at most theoretically on a par with Parmenides. The sole possible exception is Plato, who, albeit insufficiently, made an attempt to formulate an account in a conceptual framework where, at least according to Plato's intentions, the internal complexity of the material principle is to some extent taken on board.

[28] Note that once Aristotle distanced his understanding of the underlier from the 'material' principles of earlier philosophers, he need not keep on stressing this point in other contexts and on other occasions. Most importantly this is the case in *Metaph.* A in the course of Aristotle's rational reconstruction of the development through which his predecessors arrived at his four causes – or at least at some grasp of these causes. There he claims without any caveat that 'most of those who were the first to do philosophy thought that the first principles of all things were solely of the material type' (983b7–8, translation slightly modified from Barney 2012: 76, for further discussion see pp. 76–85 there).